Infino HM-4300G

LOTTE ADVANCED MATERIALS CO., LTD. - Polyphthalamide

Saturday, January 18, 2020

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.41	g/cm³	ASTM D792
Density (Natural)	1.41	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	25	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	25	g/10 min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.40	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.80 to 0.90	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.80 to 0.90	%	
Flow : 2.00 mm	0.30 to 0.40	%	
Ash Content			
--	30	%	ASTM D5630
--	30	%	ISO 3451
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield)	200	MPa	ASTM D638
Tensile Stress (Yield)	200	MPa	ISO 527-2/5
Tensile Strength [2] (Break)	200	MPa	ASTM D638
Tensile Stress (Break)	200	MPa	ISO 527-2/5
Tensile Elongation [2] (Break)	3.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus [3]	9300	MPa	ASTM D790
Flexural Modulus [3]	10000	MPa	ISO 178
Flexural Strength [3]	250	MPa	ASTM D790
Flexural Stress [3]	250	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [4] (23°C)	8.0	kJ/m²	ISO 179/1eA
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	79	J/m	
23°C, 6.35 mm	79	J/m	
Notched Izod Impact Strength [4] (23°C)	8.0	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	120		ASTM D785
Rockwell Hardness (R-Scale)	120		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	295	°C	
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	295	°C	

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 to 3.0 mm)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80 to 100	°C
Hot Air Dryer	100 to 120	°C
Drying Time		
Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	300 to 310	°C
Middle Temperature	310 to 320	°C
Front Temperature	320 to 340	°C
Nozzle Temperature	320 to 340	°C
Mold Temperature	120 to 140	°C
Injection Pressure	490 to 2450	MPa
Back Pressure	0.490 to 1.96	MPa
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 320 to 340°C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 5.0 mm/min

[3] 2.8 mm/min

[4] 4mm